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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/620,912	07/15/2003	Chaz Immendorf	NET-007 US	8939

23639 7590 05/08/2006

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EXAMINER	
DOAN, PHUOC HUU	

ART UNIT	PAPER NUMBER
2617	

DATE MAILED: 05/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/620,912	IMMENDORF ET AL.	
	Examiner	Art Unit	
	PHUOC H. DOAN	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *28 March 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,4-7,14,15,22-26,36,37 and 43-78* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,4-7,14,15,22-26,36,37 and 43-78* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1, 4-7, 14-15, 22-26, 36-37, and 43-78 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims **1, 4-7, 14-15, 22-23, 26, 36-37, 43-48, and 73-78** are rejected under 35 U.S.C. 102(e) as being anticipated by **Bourlas (US Patent No: 6,577,863)**.

As to claim 1, 75, Bourlas discloses a method of supporting **voice-band** "a broadband wireless communication systems services for **voice, data, and video on the same bandwidth, see col. 3, lines 40-60**" modem-to-modem calls in a wireless communication system (See Abstract), the method comprising: detecting a call from a first voice band modem "**(MIC) modem interface card**" to a second voice band modem over a wireless voice channel (col. 3, lines 41-65); establishing a

connection with the first modem voice band in response to the detected modem call (col. 6, lines 15-35); receiving data from the first voice band modem over the connection (col. 6, lines 15-25); demodulating the received data (col. 6, lines 25-27); and relaying "**base station**" the demodulated data from a near end of the wireless broadband channel to a far end of the wireless broadband channel (col. 8, lines 5-13 **"wireless broadband connection between a base station and customer sites, the networks infrastructure of the wireless broadband, and hardware component; including cable; microwave link which indicated in Fig. 1, 2"**).

As to claim 4, Bourlas further discloses comprising: receiving the relayed data at the far end of the wireless broadband channel (Fig. 1, items 104, 112); modulating the received data (col. 6, 25-27); establishing a connection with the second voice band modem ("**plurality of modems installed in customers site, and plurality of modem installed in base station site**", lines 6, lines 15-30); and transmitting the modulated data to the second voice band modem via the connection (lines 6, lines 15-30).

As to claim 5, Bourlas further discloses all the limitation in col. 9, lines 22-55, **"Fault Messages is a method to detect the failure of any modem in communication** ".

As to claim 6, Bourlas further discloses wherein the wireless broadband channel is not used for voice calls (col. 3, lines 52-55).

As to claim 7, Bourlas further discloses all the limitation in col. 1, lines 15-45 "**the functional of voice/data communication, the circuit switch is means for used voice channel, and packet switched is used for data channel**".

As to claim 14, 36, Bourlas further discloses wherein detecting the modem call comprises detecting tones (col. 6, lines 30-40)

As to claim 15, Bourlas further discloses all the limitations in col. 6, lines 15-30.

As to claim 22, Bourlas discloses a wireless communication system comprising: a wireless voice channels having a near end and a far end (col. 3, lines 40-65); a wireless broadband channel having the same near end and the same far end as the wireless voice channel (col. 40-65); a first modem linked to the near end of the wireless voice and broadband channel (col. 4, lines 21-30); a second modem linked to the far end of the wireless voice and broadband channel (col. 4, lines 21-30), a third modem located at the near end of the wireless voice and broadband channels and configured for (col. 5, lines 23-37), in response to a detection of the modem call over the wireless voice channel (col. 5, lines 39-53), establishing a connection with the first modem (col. 5, lines 40-45), receiving data from the first modem over the connection (col. 5, lines 39-53), and demodulating the received data and a first

radio unit located at the near end of the wireless voice and broadband channels and configured for relaying the demodulated "col. 6, lines 25-27" data over the wireless broadband channel (col. 8, lines 5-13 **"wireless broadband connection between a base station and customer sites, the networks infrastructure of the wireless broadband, and hardware component; including cable; microwave link which indicated in Fig. 1, 2"**).

As to claim 23, Bourlas further discloses all the limitation in col. 6, lines 25-27, and col. 8, lines 5-13).

As to claim 26, Bourlas further discloses all the limitation in col. 1, lines 30-47.

As to claim 37, Bourlas further discloses all the limitation in col. 6, lines 15-47 "customer premises equipment 110 associated plurality uses of MICs communicated through base station".

As to claim 43, Bourlas further discloses the method of claim 1 further comprising terminating the modem call over the wireless voice channel prior to establishing the connection between the near end of the wireless broadband channel and the first voice band modem (col. 7, lines 15-35).

As to claim 44, Bourlas further discloses the method of claim 1 wherein the wireless broadband channel is located between the first voice band modem and

second voice band modem (col. 3, lines 41-65 "**CPE 110 communicates with the base station 104 over a wireless links**".

As to claim 45, Bourlas further discloses the method of claim 1 wherein the wireless voice channel is dedicated to the modem call (col. 4, lines 15-35).

As to claim 46, Bourlas further discloses the method of claim 1 wherein the connection is established between the near end of the wireless broadband channel and the first voice band modem (col. 3, lines 55-65).

As to claim 47, Bourlas further discloses the method of claim 1 wherein the modem call is detected at a near end of the wireless voice channel (col. 4, lines 40-50).

As to claim 48, Bourlas further discloses the method of claim 1 wherein the modem call is detected at a far end of the wireless voice channel (col. 6, lines 30-45).

As to claim 73, this claim is rejected for the same reason as set forth in claim 1.

As to claim 74, this claim is rejected for the same reason as set forth in claim 1.

As to claim 76, this claim is rejected for the same reason as set forth in claim 1.

As to claim 77, this claim is rejected for the same reason as set forth in claim 1.

As to claim 78, this claim is rejected for the same reason as set forth in claim 14.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claim **49** is rejected under 35 U.S.C. 103(a) as being unpatentable over Bourlas in view of **Olafsson (US Pub No: 2004/0146148)**.

As to claim 49, Bourlas does not disclose wherein the first modem by answering a modem call from the first modem, and the fourth modem establishes a connection with the second modem by placing a modem call to the second modem.

In the same field of endeavor, Olafsson discloses wherein the first modem by answering a modem call from the first modem (page 2, par. [0019]), and the fourth modem establishes a connection with the second modem by placing a modem call to the second modem (page 6, par. 0049]). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide by placing a modem to the second modem as taught by Olafsson to the system of

Bourlas in order to reduce the initialization time normally associated with a conventional V.90 modem system.

6. Claims **50-72** are rejected under 35 U.S.C. 103(a) as being unpatentable over Bourlas in view of **Bishop (US Patent No: 6,850,512)**.

As to claim 50, 51, 65, 66, Bourlas discloses a method of supporting voice-band modem-to-modem calls in a wireless communication system (col. 3, lines 40-65), the method comprising: detecting a call from a first modem to a second modem over a wireless voice channel (col. 4, lines 21-30); determining a data transfer rate of the detected modem call (col. 5, lines 39-53); comparing the data transfer rate to a bandwidth of the wireless voice channel; and if the data transfer rate is greater than the bandwidth of the wireless voice channel; establishing a connection with the first modem (col. 4, lines 21-30); receiving data from the first modem over the connection (col. 5, lines 39-53); demodulating the received data (col. 6, lines 25-27); and relaying the demodulated data from a near end of a wireless broadband channel to a far end of the wireless broadband channel (col. 6, lines 25-27; col. 8, lines 5-13 **"wireless broadband connection between a base station and customer sites, the networks infrastructure of the wireless broadband, and hardware component; including cable; microwave link which indicated in Fig.**

1, 2"). However, Bourlas does not disclose that comparing the data transfer rate to a bandwidth of the wireless voice channel and if the data transfer rate is greater than the bandwidth of the wireless voice channel (col. 1, lines 24-45). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide of comparing the data transfer rate to a bandwidth of the wireless voice channel as taught by Olafsson to the system of Bourlas in order to improve high speed data transfer.

As to claim 52, 67, Olafsson further discloses all the limitation in col. 1, lines 24-45 "data transfer rate is used wireless voice channel if the data rate is less than the bandwidth".

As to claim 53, Bourlas further discloses the method of claim 50 further comprising: receiving the relayed data at the far end of the wireless broadband channel (col. 4, lines 21-30); modulating the received data (col. 7, lines 2-4); establishing a connection with the second modem (col. 4, lines 21-30); and transmitting the modulated data to the second modem via the connection (col. 7, lines 2-5; col. 8, lines 5-10).

As to claim 54, this claim is rejected for the same reason as set forth in claim 49.

As to claim 55, Bourlas further discloses wherein the wireless broadband channel is not used for voice calls (col. 8, lines 22-23).

As to claim 56, Bourlas further discloses all the limitation in col. 3, lines 41-50 "broadband wireless communication system service voice, data, and video".

As to claim 57, this claim is rejected for the same reason as set forth in claim 36.

As to claim 58, Bourlas further discloses the method of claim 50 wherein one of a subscriber unit and a base station relays the modulated data and another of the subscriber unit and the base station receives the modulated data (col. 6, lines 15-30).

As to claim 59, this claim is rejected for the same reason as set forth in claim 50.

As to claim 60, this claim is rejected for the same reason as set forth in claim 50.

As to claim 61, this claim is rejected for the same reason as set forth in claim 50.

As to claim 62, this claim is rejected for the same reason as set forth in claim 50.

As to claim 63, this claim is rejected for the same reason as set forth in claim 50.

As to claim 64, this claim is rejected for the same reason as set forth in claim 50.

As to claim 68, this claim is rejected for the same reason as set forth in claim 23.

As to claim 69, this claim is rejected for the same reason as set forth in claim 65.

As to claim 70, this claim is rejected for the same reason as set forth in claim 36.

As to claim 71, Bourlas further discloses the system further comprising a subscriber unit and a base station (col. 4, lines 21-25), one of which includes the

third modem and the first radio unit (col. 4, lines 30-40), and another of which includes the fourth modem and the second radio unit (col. 4, lines 30-38).

As to claim 72, this claim is rejected for the same reason as set forth in claim 49.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to PHUOC H. DOAN whose telephone number is 571-272-7920. The examiner can normally be reached on 9:30 AM - 6:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, GEORGE ENG can be reached on 571-272-7495. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Phuoc Doan
04/15/06

GEORGE ENG
SUPERVISORY PATENT EXAMINER